

We claim:

1. A method of transmitting data in a distributed computing system, the method comprising the steps of:

- (a) transmitting from a first node to a transaction coordinator a proposed time contract for at least one transaction with at least a second node;
- (b) receiving from the transaction coordinator status information of the second node; and
- (c) transmitting data from the first node to the second node when the status information indicates that the last communication from the second node to the transaction coordinator has occurred within a predetermined period of time.

2. The method of claim 1, wherein the predetermined period of time is equal to the proposed time contract.

3. The method of claim 1, wherein the predetermined period of time is equal to the proposed time contract plus a latency value determined by the transaction coordinator.

4. The method of claim 1, further including the step of receiving an alternative proposed time contract from the transaction coordinator.

5. The method of claim 4, further including the step of transmitting to the transaction coordinator an approval of the alternative proposed time contract.

6. The method of claim 1, wherein the proposed time contract corresponds to a single transaction.

7. The method of claim 1, wherein the second node comprises the transaction coordinator.

8. The method of claim 1, wherein the at least a second node comprises the second node and a third node.
9. A method of transmitting data in a distributed computing system, the method comprising the steps of:
- (a) negotiating a time contract with a recipient node;
 - (b) identifying an elapsed time since a last contact from the recipient node;
 - (c) comparing the elapsed time to a time period in the time contract; and
 - (d) transmitting data to the recipient node when the elapsed time does not exceed the time period in the time contract.
10. The method of claim 9, further including the step of storing the time period in a nonvolatile memory.
11. A method of coordinating transactions between nodes in a distributed computer system, the method comprising the steps of:
- (a) storing in a memory a negotiated time contract value between at least a first node and a second node of the distributed computer system
 - (b) receiving from the first node a request for the status of the second node;
 - (c) comparing an elapsed time since a last communication from the second node to a predetermined period of time; and
 - (d) transmitting a status message to the first node, wherein the content of the status message is a function of the comparison made in step (c).
12. The method of claim 11, further including the step of transmitting a proposed time contract to the first node.
13. The method of claim 11, wherein the predetermined period of time is equal to the time contract value.

14. The method of claim 11, wherein the predetermined period of time is equal to the time contract value plus a latency value.

15. A computer-readable medium containing computer-executable instructions for causing a first node to perform the steps comprising:

- (a) transmitting from a first node to a transaction coordinator a proposed time contract for at least one transaction with at least a second node;
- (b) receiving from the transaction coordinator status information of the second node; and
- (c) transmitting data from the first node to the second node when the status information indicates that the last communication from the second node to the transaction coordinator has occurred within a predetermined period of time.

16. A computer-readable medium containing computer-executable instructions for causing a computer device to perform the steps comprising:

- (a) negotiating a time contract with a recipient node;
- (b) identifying an elapsed time since a last contact from the recipient node;
- (c) comparing the elapsed time to a time period in the time contract; and
- (d) transmitting data to the recipient node when the elapsed time does not exceed the time period in the time contract.

17. A computer-readable medium containing computer-executable instructions for causing a computer device to perform the steps comprising:

- (a) storing in a memory a negotiated time contract value between at least a first node and a second node of a distributed computer system;
- (b) receiving from the first node a request for the status of the second node;
- (c) comparing an elapsed time since a last communication from the second node to a predetermined period of time; and
- (d) transmitting a status message to the first node, wherein the content of the status message is a function of the comparison made in step (c).